Aug-10-05 08:09am From-NETC Procurement +3014471092 T-864 P.002/011 F-553

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FEDERAL EMERGENCY MANAGEMENT AGENCY

MODIFICATION OF INTERAGENCY AGREEMENT

1. INTERAGENCY AGREEMENT NO.	2. MODIFICATION NO.	3. EFFECTIVE DATE	4. PROJECT/REQUISITION NO.
HSFEEM-04-X-0378	000001	SEE BLOCK 13	Z1004117

5. ISSUED BY

Department of Homeland Security/FEMA
NETC Acquisition Section
Building E
16825 South Seton Avenue
Emmitsburg MD 21727

CPSC-I-04-1386; MOD 1

6. AGENCY PERFORMING SERVICE

U. S. CONSUMER PRODUCT SAFETY COMMISSION

EAST WEST TOWERS
4330 EAST WEST HIGHWAY, SUITE 600

BETHESDA MD 20814

7. PROJECT TITLE

Fire Protection Products in the Household - Phase II

8. ACCOUNTING AND APPROPRIATION DATA (if required)

SEE CONTINUATION SHEET

9. DESCRIPTION OF MODIFICATION

The purpose of this modification to HSFEEM-04-X-0378 is as follows:

(1) Incorporate the attached statement of work into this agreement;

(2) Extend the period of performance to July 30, 2007; and

(3) Provide funding in the amount of $75,000.00. This increases this agreement from: $75,000.00 by: $75,000.00 to: $150,000.00.

Except as provided herin, all other terms and conditions of the agreement remain in full force and effect.

10. SIGNATURE OF PERSON AUTHORIZED TO SIGN	DATE	12. SIGNATURE OF PERSON AUTHORIZED TO SIGN	DATE
Donna Hutton (signature)	8/5/05	(signature)	8/8/05

11. TYPE NAME & TITLE OF PERSON AUTHORIZED TO SIGN	13. TYPE NAME & TITLE OF PERSON AUTHORIZED TO SIGN
Donna Hutton, Contracting Officer U.S. Consumer Product Safety Commission	Bryan S. McCreary Contracting Officer FEDERAL EMERGENCY MANAGEMENT AGENCY

FEMA FORM 40-2 (3/80)

CPSC-I-04-1386; MOD 1

CONTINUATION PAGE

A.1 PRICE/COST SCHEDULE

ITEM NO.	DESCRIPTION OF SUPPLIES/SERVICES	QTY	UNIT	UNIT PRICE	AMOUNT
1		1.00	JOB	$75,000.00	$75,000.00
	FIRE PROTECTION PRODUCTS IN THE HOUSEHOLD - PHASE II				
	FUNDING/REQ NO: 1: $75,000.00 E388411Y				
			GRAND TOTAL ---		$75,000.00

ACCOUNTING AND APPROPRIATION DATA:

ACRN	APPROPRIATION		REQUISITION NUMBER		AMOUNT
1	2005-62-0518RE-6300-	-2589-R	E388411Y	F	$75,000.00

FOR CPSC:

$ 75,000.00

Acct. Data: 05 PS EXOB 4400 21725 252b
DUNS #: 069287522
TIN: 520978750
ALC: 61-00-0001
US Treas. Code: 6150100

DUNS number - [illegible]

Cost Estimate/Tasks/Schedules for Fire Protection Products in the Home: Consumer Personal Protective Equipment, Emergency Escape Masks - Phase 2 FY 2005 USFA IAG

Cost Estimate

- Professional Staff Time/Project Management $1500

Position/Title	Fully Loaded Labor Rate	Approx. Hours	Total Cost
Fire Protection Engineer	$50	10	$500
Engineering Psychologist	$50	10	$500
Economist	$50	10	$500

- Sample Procurement $9,300 - Attachment A
- Contract Testing $44,200 - Attachment A
- Develop Effectiveness Estimate $20,000 - Attachment B - See Group 2, Task 3

TOTAL $75,000

Tasks/Schedule

- Identify models of emergency escape masks for evaluation - September 2005
- Develop test plan based on ANSI/ISEA 110 for emergency escape mask conditioning and durability testing - September 2005
- Purchase samples/models of emergency escape masks and award contract for testing and evaluation - September 2005
- Contractor Mask Conditioning and Durability Test Report - May 2006
- Develop consumer information/training manual for use of emergency of escape masks - September 2006
- Complete Potential Benefits of Emergency Escape Masks Report - December 2006

ANSI 110 Testing of Emergency Escape Mask Testing Estimate

Attachment A

Section	Description	# of samples	Test Cost	Price	Sample cost	Test + SampleTotal
8.2-8.5	Conditioning	19	$200	$3,800	$100	$5,700
7.11 & 9.1	Flammability - conduct 3 tests on each model	3	$800	$2,400	$100	$2,700
7.12 & 9.1	Melters Polymeric Drip - conduct 3 tests on each model	3	$1,000	$3,000	$100	$3,300
7.13 & 9.1	Radiant Heat Resistance - conduct 3 tests on each model	3	$750	$2,250	$100	$2,550
7.14 & 9.1	Corrosion Resistance - conduct 3 tests on each model	3	$1,100	$3,300	$100	$3,600
	Total Samples per Model Needed	31			$ 3,100.00	
				Total	$ 9,300.00	
			Total	$14,750	Total	$17,850
			3 Models			$53,550

Estimated Sample Procurement Cost	$9,300
Estimated Testng Cost	$44,200

Attachment B
Improving Cost Estimates for Residential Fires

Background

The mission of the Consumer Product Safety Commission (CPSC) is to reduce unreasonable risks of injury from consumer products. For most projects concerning residential fires, CPSC injury estimates are calculated from data provided by the U.S. Fire Administration (USFA) from its National Fire Incident Reporting System (NFIRS) and the National Fire Protection Association (NFPA) survey results. Thus, in the past, residential fire injuries were reported by NFIRS only in very broad categories, i.e., sent to the hospital, treated at scene, etc. rather than as conventional medical dispositions, such as treated and released or admitted to the hospital. Little detail was provided on injury severity. Injury costs for an injury sent to the hospital can differ by several orders of magnitude between a minor burn treated and released from a community hospital and a severe burn and inhalation injury treated at a specialized burn center.

In the early 1990's, the CPSC conducted a study, *Estimating the Costs to Society of Cigarette Fire Injuries*, which addressed some of these issues and developed incidence and cost estimates for the NFIRS/NFPA treated categories for cigarette fire injuries, breaking the sent to the hospital category in NFIRS/NFPA into treated and released and admitted to the hospital. In order to break out cigarette-related injuries, the 1993 study developed information on various residential fire scenarios that allowed the contractor to fine tune the cost estimates according to ignition source or material first ignited. This study will build on the 1993 study and incorporate more recent data (most of the data used in the 1993 study is now 15 to 20 years old).

However, more important than just having more recent data available is the quantity and quality of the data. The family of National Center for Health Statistics databases provides greater quantities of data on injury incidence and cost than was available in the past. Improvements in the NFIRS coding system provide new data on injury severity and the Fire Injury Survey follow-ups to the National Electronic Injury Surveillance System (NEISS)

injury cases provide information on injury severity and causality. Such data will help bridge the conceptual gaps between the NEISS and the NFIRS/NFPA estimates. In addition, different databases provide alternative measures of such parameters as length of stay (LOS) for hospitalized burn injuries. If different sources provide consistent estimates of the same parameter, such as LOS, the overall credibility of the estimate is enhanced. Thus, the potential improvements from this study are better measures of incidence of injury, severity of injury, costs of injury, and causality of injury. These improvements result in better overall estimates of societal costs of fire and targeted estimates of societal costs of injuries for individual products or projects.

The ongoing changeover to NFIRS 5.0 (which began in 1999) can help facilitate the development of improved injury cost estimates by providing a better measure of fire injury severity than has previously been available. Changes in the NFIRS coding include a new characterization of severity (i.e., minor, moderate, severe, life-threatening, or unknown).

Another ongoing CPSC effort is the NEISS follow-up survey of fire injuries, which will also help facilitate the development of cost estimates for NFIRS injuries treated at hospitals. This survey is collecting causal information similar to the NFIRS (e.g., what caused the fire and what caught fire first), information on the location where medical treatment was given (e.g., burn hospital), what types of treatment were given (e.g., skin grafts), whether time was lost from school or work, and whether the local fire department attended the fire. If the fire department attended the fire, this survey attempts to get the record from the fire department. This survey will provide a body of injuries coded under both systems, which will help in assessing the relative severity of fire injuries. For example, are NFIRS life-threatening injuries showing up consistently as severe, hospitalized injuries in the NEISS? This data may also provide a vehicle for allocating the NFIRS/NFPA data into injuries into the NEISS disposition categories: treated and released and admitted and for creating cost adjustment factors for projects such as upholstered furniture.

In addition, more recent and detailed information on medical costs is available from such sources as the

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Healthcare Cost and Utilization Project (HCUP), the Medical Expenditure Panel Survey (MEPS), Medstat, and a variety of other state and federal databases, primarily from the late 90's, which will allow for development of overall estimates of burn and anoxia injuries and residential fire-related injuries from existing data

The U.S. Fire Administration (USFA) is seeking information on the potential benefits of fire escape masks and may provide funding for two tasks through an interagency agreement. Some of the information collected on incidence and costs of injuries will be developed by the contractor and will support the benefits estimates of escape masks, but some will have to be developed expressly for the escape masks task. Therefore certain tasks listed below will only be undertaken if funding is available from USFA in a timely manner.

Description of Work

The period of performance is two years from the date of the award of the contract. The contractor shall examine the tasks below and develop a study plan and schedule based on the objectives below within ten business days of award of the contract. In some instances task schedules will be dependent on data furnished by the CPSC or outside parties. In those instances, schedules should be contingent on the date the data are provided. The schedule need not necessarily follow the order shown in the tasks below. The schedule shall allow time for peer review. CPSC staff will review the study plan within five business days and meet with the contractor to discuss the study plan and schedule within ten business days after completing their review. A payment schedule will be negotiated at that time. Tasks are split into two levels: Group 1 includes the core tasks required by CPSC and Group 2 Tasks are additional tasks that will only be conducted if funding is received from USFA. **Funding may not be forthcoming for some or all Group 2 tasks.**

The major objectives of this study are:

Group 1: CPSC Core Tasks (Estimated cost: $112,000)

Task 1: Develop Incidence and Cost Estimates for the Various Treatment Levels for Fire-Related Injuries (Estimated cost: $98,000)

A. Develop estimates of overall consumer product-related burn and anoxia injuries and residential fire-related injuries from existing data sources. There are several levels of fire injury information: some, like the National Health Interview Survey, NEISS and HCUP deal with medical treatment, while NFIRS/NFPA estimates use information collected from fire departments. Also, estimate numbers of injuries treated in specialized burn centers compared with those treated in community hospitals. Develop breakdowns of injuries by treatment levels and fire department attention comparable to the 1993 study. Estimates need not be developed for fatalities, but estimates for burn injuries, anoxia injuries, other civilian injuries, and firefighter injuries by NEISS/ICM disposition (admitted, treated and released, other medical treatment) are required.

B. Develop burn center injury cost estimates for each disposition (treated & released, admitted) from burn center data from Burn Foundation (data from five Pennsylvania burn centers collected at the Lehigh Valley data center) and/or subsets of American Burn Association data. If possible, develop adjustment factors on length-of-stay for hazard types or product groupings in which the CPSC has an ongoing interest, e.g., upholstered furniture, cigarette and other lighters, candles, and mattresses and bedding.

C. Develop overall estimates of burn and anoxia injury costs from existing national databases and use burn center estimates from above to estimate injury costs for community hospitals as a residual. Develop injury cost estimates for burn and anoxia injuries treated outside the emergency department (ED).

D. Develop a base of fire and burn related injuries from jury verdicts for use in estimating pain and suffering estimates. Conduct regression analysis of verdicts. Use information developed in C above to make adjustments to allow for changes in treatment modes, e.g., reduced LOS.

E. Analyze Fire Survey data to determine LOS and hospitalization rate for ED treated residential fire injuries. Analyze other severity indicators such as re-treatment and additional medical procedures required. Compare Fire Survey data with estimates from burn centers and with estimates from national data sources. Use the disposition information from the Fire Survey to allocate NFIRS/NFPA estimates into the NEISS dispositions. Compare Fire Survey data to the adjustment factors developed with the burn center data to see if they appear consistent.

F. Develop comprehensive costs for all non-fatal residential fire injuries by medical disposition and fire service involvement using the hybrid NEISS/NFIRS classifications from the 1993 study. Use scenario-specific information developed in B above to develop comprehensive cost estimates for CPSC residential fire projects. Verify estimates are exhaustive, mutually exclusive, and internally consistent. Develop method for integrating NEISS estimates for non-fire department attended injury costs into the injury costs for NFIRS/NFPA estimates. This may require that contractor make changes in the Injury Cost Model.

Task 2: Determine the Proportion of Fire-Related Injuries Which Are Bypassing the Emergency Room (Estimated cost: $14,000)

Examine Federal and State databases and contact burn care treatment organizations to estimate the extent to which fire injury victims are being treated at burn or trauma centers without first being admitted through an emergency room. Incorporate these estimates in the incidence estimates for hospitalized injuries and in the Injury Cost Model.

Group 2: USFA Funded Task

Task 3: Develop Estimates of the Potential Benefits if Consumers Adopt and Use Escape Masks/Fire Masks: (Estimated cost: $20,000)

This task will use either the information developed in Task 1 above (if conducted) or existing information on residential fire injury costs along with an analysis of

injury and death data for anoxia (including burn and anoxia) to estimate the potential benefits of masks designed to enable civilians involved in residential fires to escape from smoke inhalation scenarios. This would entail estimating what proportion of deaths would be reduced to injury or no injury and what proportion of injuries would be reduced in severity, and then estimating the potential benefits in terms of reduced death and injury costs. For example, a fire death might be reduced to a burn injury or no injury through use of a fire mask.

Task 4: Develop Estimates of Quality Adjusted Life Years (QALYs) - Develop QALYs for Fire, Anoxia, and Other Injuries to Provide Cost-Effectiveness Estimates for Escape Masks (Estimated cost: $20,000)

A. Develop QALY estimates for the different treatment levels of burn, anoxia, and other injuries using existing QALY data. Organize a panel of burn physicians to provide impairment ratings for burn and anoxia injuries to construct these estimates. Provide alternative estimates of monetized QALYs for injuries based on different valuations of statistical lives.

B. Apply the QALY estimates to the injury and death reduction benefits of escape masks developed. Generate a QALY-based alternative estimate of benefits.